RAW SEQUENCE LISTING PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:50

INPUT SET: S36943.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

```
1
                                       SEQUENCE LISTING
 2
    (1)
           General Information:
 3
 4
 5
          (i) APPLICANT: BAYLOR COLLEGE OF MEDICINE
 õ
                         SMITH, JAMES R.
 7
                      DRUTZ, DAVID J.
                      WILSON, DEBORAH R.
 8
                      ZUMSTEIN, LOUIS A.
 9
10
        (ii) TITLE OF INVENTION: SENESCENT CELL DERIVED INHIBITORS OF
11
12
                 DNA SYNTHESIS
13
       (iii) NUMBER OF SEQUENCES: 36
7 -1
15
15
        (iv) CORRESPONDENCE ADDRESS:
17
               (A) ADDRESSEE: ROGERS & WELLS
               (B) STREET: 200 PARK AVENUE
18
                                                       ENTERED
19
               (C) CITY: NEW YORK
               (D) STATE: NEW YORK
20
               (E) COUNTRY: USA
21
               (F) ZIP: 10166
22
23
          (v) COMPUTER READABLE FORM:
24
               (A) MEDIUM TYPE: Floppy disk
25
               (B) COMPUTER: IBM PC compatible
26
27
               (C) OPERATING SYSTEM: PC-DOS/MS-DOS
               (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
28
29
        (vi) CURRENT APPLICATION DATA:
30
               (A) APPLICATION NUMBER: 10/008,960
31
               (B) FILING DATE: 07-DEC-2001
32
               (C) CLASSIFICATION:
3.3
3.4
          WILL FRICE APPLICATION DATA:
: 5
. ..
               (A) APPLICATION NUMBER: US/08/327,874
               WB, FILLING TATE
38
3.9
40
41
        (VII) PEIOR APPLICATION DATA:
42
               (A) APPLICATION NUMBER: US 07/808,523
43
               (B) FILING DATE: 16-DEC-1991
44
45
46
       (vii) PRIOR APPLICATION DATA:
```

RAW SEQUENCE LISTING PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:50

INPUT SET: S36943.raw

| 47 | | (A) APPLICATION NUMBER: US 07/970,462 |
|-----------|--------------|--|
| 48 | | (B) FILING DATE: 02-NOV-1992 |
| 49 | | |
| 50 | (vii) | PRIOR APPLICATION DATA: |
| 51 | | (A) APPLICATION NUMBER: US 08/113,372 |
| 52 | | (B) FILING DATE: 30-AUG-1993 |
| 5 3 | | |
| 54 | (V11) | PRIOR APPLICATION DATA: |
| 55 | | (A) APPLICATION NUMBER: US 08/153,564 (B) FILING DATE: 17-NOV-1993 |
| 56 57 | | (B) FILING DATE: 17-NOV-1993 |
| 5 / 58 | (373 i) | PRIOR APPLICATION DATA: |
| 59 | (\(\tau \) | (A) APPLICATION NUMBER: US 08/203,535 |
| 60 | | (B) FILING DATE: 25-FEB-1994 |
| 61 | | (b) Thing bath. 23 The 1991 |
| 62 | (vii) | PRIOR APPLICATION DATA: |
| 63 | , , | (A) APPLICATION NUMBER: US 08/229,420 |
| 64 | | (B) FILING DATE: 15-APR-1994 |
| 65 | | |
| 66 | (vii) | PRIOR APPLICATION DATA: |
| 67 | | (A) APPLICATION NUMBER: US 08/274,535 |
| 68 | | (B) FILING DATE: 13-JUL-1994 |
| 69 | | |
| 70 | (vii) | PRIOR APPLICATION DATA: |
| 71 | | (A) APPLICATION NUMBER: PCT US94/09700 |
| 72 | | (B) FILING DATE: 26-AUG-1994 |
| 73 | 7 | DDTOE ADDITION DATE |
| 74 | (V11) | PRIOR APPLICATION DATA: |
| 75 76 | | (A) APPLICATION NUMBER: 08/327,874 (B) FILING DATE: 24-OCT-1994 |
| 77 | | (b) Filling Date: 24-0C1-1994 |
| 78 | (viii) | ATTORNEY/AGENT INFORMATION: |
| 79 | (*****/ | (A) NAME: NORTON, GERARD P. |
| 80 | | (B) REGISTRATION NUMBER: 36,621 |
| 81 | | (C) REFERENCE/DOCKET NUMBER: 3634-8-CIP10 |
| 82 | | |
| 83 | (ix) | TELECOMMUNICATION INFORMATION: |
| 84 | | (A) TELEPHONE: (212) 878-3148 |
| 85 | | (B) TELEFAX: (212) 878-8375 |
| 86 | | |
| 87 | (2) INFO | RMATION FOR SEQ ID NO:1: |
| 0 B | 7.1.3 | GROVENGE GUIDIGEELGG |
| ê z | 111 | SEQUENCE CHARACTERISTICS: (A) IFNOTH: 2106 base pairs |
| m 91 | | (B) TYPE, nucleic as of |
| gr. | | (C) STRANDEDNESS: single |
| 93 | | (D) TOPOLOGY: linear |
| 93 94 | | (b) forohodi. Timedi |
| 95 | (ii) | MOLECULE TYPE: CDNA |
| 96 | (11) | |
| 97 | (iii) | HYPOTHETICAL: NO |
| 98 | . = = = / | |
| 99 | (iv) | ANTI-SENSE: NO |

RAW SEQUENCE LISTING PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:50

INPUT SET: S36943.raw

| 100 | | | | | | | | | | |
|---------|---|-----------|--|--|--|--|--|--|--|--|
| 101 | (vi) ORIGINAL SOURCE: | | | | | | | | | |
| 102 | (A) ORGANISM: Homo sapiens | | | | | | | | | |
| 103 | (G) CELL TYPE: SENESCENT HUMAN CELLS | | | | | | | | | |
| 104 | | | | | | | | | | |
| 105 | (vii) IMMEDIATE SOURCE: | | | | | | | | | |
| 106 | (A) LIBRARY: SENESCENT CELL DERIVED CDNA LIBRARY | | | | | | | | | |
| 107 | (B) CLONE: SDI-1 | | | | | | | | | |
| 108 | | | | | | | | | | |
| 109 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1: | | | | | | | | | |
| 110 | | | | | | | | | | |
| 111 | CCTGCCGAAG TCAGTTCCTT GTGGAGCCGG AGCTGGGCGC GGATTCGCCG AGGCAC | | | | | | | | | |
| 112 | GCACTCAGAG GAGGCGCCAT GTCAGAACCG GCTGGGGATG TCCGTCAGAA CCCATG | | | | | | | | | |
| 113 | AGCAAGGCCT GCCGCCGCCT CTTCGGCCCA GTGGACAGCG AGCAGCTGAG CCGCGA | | | | | | | | | |
| 114 | GATGCGCTAA TGGCGGGCTG CATCCAGGAG GCCCGTGAGC GATGGAACTT CGACTT | | | | | | | | | |
| 115 | ACCGAGACAC CACTGGAGGG TGACTTCGCC TGGGAGCGTG TGCGGGGCCT TGGCCT | | | | | | | | | |
| 116 | AAGCTCTACC TTCCCACGGG GCCCCGGCGA GGCCGGGATG AGTTGGGAGG AGGCAG | | | | | | | | | |
| 117 | CCTGGCACCT CACCTGCTCT GCTGCAGGGG ACAGCAGAGG AAGACCATGT GGACCT | | | | | | | | | |
| 118 | CTGTCTTGTA CCCTTGTGCC TCGCTCAGGG GAGCAGGCTG AAGGGTCCCC AGGTGG | | | | | | | | | |
| 119 | GGAGACTCTC AGGGTCGAAA ACGGCGGCAG ACCAGCATGA CAGATTTCTA CCACTC | | | | | | | | | |
| 120 | CGCCGGCTGA TCTTCTCCAA GAGGAAGCCC TAATCCGCCC ACAGGAAGCC TGCAGT | | | | | | | | | |
| 121 | GAAGCGCGAG GGCCTCAAAG GCCCGCTCTA CATCTTCTGC CTTAGTCTCA GTTTGT | | | | | | | | | |
| 133 | CTTAATTATT ATTTGTGTTT TAATTTAAAC ACCTCCTCAT GTACATACCC TGGCCG | | | | | | | | | |
| 123 | CTGCCCCCA GCCTCTGGCA TTAGAATTAT TTAAACAAAA ACTAGGCGGT TGAATG | | | | | | | | | |
| 124 | GTTCCTAAGA GTGCTGGGCA TTTTTATTTT ATGAAATACT ATTTAAAGCC TCCTCA | | | | | | | | | |
| 125 | GTGTTCTCCT TTTCCTCTCT CCCGGAGGTT GGGTGGGCCG GCTTCATGCC AGCTAC | | | | | | | | | |
| 126 | TCCTCCCCAC TTGTCCGCTG GGTGGTACCC TCTGGAGGGG TGTGGCTCCT TCCCAT | | | | | | | | | |
| 127 | GTCACAGGCG GTTATGAAAT TCACCCCCTT TCCTGGACAC TCAGACCTGA ATTCTT | | | | | | | | | |
| 128 | ATTTGAGAAG TAAACAGATG GCACTTTGAA GGGGCCTCAC CGAGTGGGGG CATCAT | CAAA 1080 | | | | | | | | |
| 129 | AACTTTGGAG TCCCCTCACC TCCTCTAAGG TTGGGCAGGG TGACCCTGAA GTGAGC | | | | | | | | | |
| 130 | CCTAGGGCTG AGCTGGGGAC CTGGTACCCT CCTGGCTCTT GATACCCCCC TCTGTC | | | | | | | | | |
| 131 | GAAGGCAGGG GGAAGGTGGG GTCCTGGAGC AGACCACCCC GCCTGCCCTC ATGGCC | CCTC 1260 | | | | | | | | |
| 132 | TGACCTGCAC TGGGGAGCCC GTCTCAGTGT TGAGCCTTTT CCCTCTTTGG CTCCCC | TGTA 1320 | | | | | | | | |
| 133 | CCTTTTGAGG AGCCCCAGCT ACCCTTCTTC TCCAGCTGGG CTCTGCAATT CCCCTC | TGCT 1380 | | | | | | | | |
| 134 | GCTGTCCCTC CCCCTTGTCC TTTCCCTTCA GTACCCTCTC AGCTCCAGGT GGCTCT | GAGG 1440 | | | | | | | | |
| 135 | TGCCTGTCCC ACCCCCACCC CCAGCTCAAT GGACTGGAAG GGGAAGGGAC ACACAA | GAAG 1500 | | | | | | | | |
| 136 | AAGGGCACCC TAGTTCTACC TCAGGCAGCT CAAGCAGCGA CCGCCCCCTC CTCTAG | CTGT 1560 | | | | | | | | |
| 137 | GGGGGTGAGG GTCCCATGTG GTGGCACAGG CCCCCTTGAG TGGGGTTATC TCTGTG | TTAG 1620 | | | | | | | | |
| 138 | GGGTATATGA TGGGGGAGTA GATCTTTCTA GGAGGGAGAC ACTGGCCCCT CAAATC | GTCC 1680 | | | | | | | | |
| 139 | AGCGACCTTC CTCATCCACC CCATCCCTCC CCAGTTCATT GCACTTTGAT TAGCAG | CGGA 1740 | | | | | | | | |
| 140 | ACAAGGAGTC AGACATTTTA AGATGGTGGC AGTAGAGGCT ATGGACAGGG CATGCC | ACGT 1800 | | | | | | | | |
| . 7 . | GGGCTCATAT GGGGCTGGGA GTAGTTGTCT TTCCTGGCAC TAACGTTGAG CCCCTG | | | | | | | | | |
| 140 | CACTGAAGTG CTTAGTGTAC TTGGAGTATT GGGGTCTGAC CCCAAACACC TTCCAG | | | | | | | | | |
| 1.1. | TGTAACATAC TGGCCTGGAC TGTTTTCTCT CGGCTCCCCA TGTGTCCTGG TTCCCG | | | | | | | | | |
| <u></u> | TUUMUSTAJA (TETAAAAAT ATAGAGGGAN EGGAAAAAAA (K. KETAGTGT TATGTG | | | | | | | | | |
| 145 | TCACAGCTCC TCCCACAATG CTGATATACA GCAGGTGCTC AATAAACGAT TCTTAG | | | | | | | | | |
| 146 | AAAAA | 2106 | | | | | | | | |
| 147 | · | | | | | | | | | |
| 148 | (2) INFORMATION FOR SEQ ID NO:2: | | | | | | | | | |
| 149 | · | | | | | | | | | |
| 150 | | | | | | | | | | |
| 151 | (B) TYPE: amino acid | | | | | | | | | |
| 152 | (D) TOPOLOGY: linear | | | | | | | | | |
| 111 | (D) TOLOBOGI. TIMEAL | | | | | | | | | |

RAW SEQUENCE LISTING PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:51

INPUT SET: S36943.raw

| 153 154 | (ii) | MOLECULE | י ייעד | PE - r | arate | ∍i n | | | | | | | | | |
|------------|-----------|-----------|----------|----------|--------|-------|-------|-------|------|-------|-------|--------|-------|------|----------|
| 155 | (11) | TIOLLEGAL | | Z. 1 | ,1000 | | | | | | | | | | |
| 156 | (iii) | нүротнет | TICAL | : NO |) | | | | | | | | | | |
| 157 | (/ | | | | | | | | | | | | | | |
| 158 | (iv) | ANTI-SEN | ISE: | NO | | | | | | | | | | | |
| 159 | (20) | 11111 021 | | 1.0 | | | | | | | | | | | |
| 160 | (vi) (| ORIGINAL | SOUR | CE. | | | | | | | | | | | |
| 161 | (• ±) | (A) ORG | | | OMO | GAD. | TENS | | | | | | | | |
| 162 | | (B) STF | | | | DAI. | LLIVD | | | | | | | | |
| 163 | | (5) 511 | CALIV. | UD. | L _L | | | | | | | | | | |
| 164 | (37i i) | IMMEDIAT | רד פר | וופריו | ₹. | | | | | | | | | | |
| 165 | (V I I) | (A) LIE | | | | rent | cel. | l de | rive | יום ו | τΔ 1 | i hra: | rv | | |
| 166 | | (A) DII | orchit i | . 50 | :1169 | CHIC | CCI. | ı ue. | LIVE | ı ÇDi | νд Ι. | IDI a. | r y | | |
| 167 | (vi) | SEQUENCE | י הדכ | יר ס ד ו | יייב | CI | ZO TI | OM C | | | | | | | |
| 168 | (XI) | SEQUENCE | i DEC | CICI | 1101 | N. DI | ند پر | J 140 | | | | | | | |
| 169 | Mat | Ser Glu | Dro | λla | Glv | Λen | T/a l | λνα | Gln | λen | Dro | Cve | Glv | Sar | Lare |
| 170 | 1 | ser Gru | PIO | A1a | GIY | Asp | vaı | Arg | 10 | ASII | PIO | Суз | Gry | 15 | цув |
| 171 | | Cys Arg | 7 ~~ | Ton | Dho | C1,, | Dro | Wa 1 | | Cor | C1,, | Cln | T 011 | | λκα |
| 172 | Ala | Cys Arg | 20 | пец | FIIC | СТУ | FIU | 25 | Asp | 261 | Giu | GIII | 30 | SEL | Arg |
| 173 | Agn | Cys Asp | | T.Q11 | Met | Δla | Glv | | Tle | Gln | Glu | αla | | Glu | Δra |
| 174 | den | 35 | AIG | пси | 1.10.0 | AIU | 40 | СУЗ | 110 | 0111 | Olu | 45 | n. g | Olu | Arg |
| 175 | Trn | Asn Phe | Asn | Phe | Val | Thr | | Thr | Pro | T.e11 | Glu | | Δsn | Phe | Δla |
| 176 | 111 | 50 | пор | 1110 | vai | 55 | Olu | | 110 | Dea | 60 | O I y | пър | 1110 | 1114 |
| 177 | Trn | Glu Arg | Val | Δrσ | Glv | | Glv | Leu | Pro | Lvs | | Tyr | Len | Pro | Thr |
| 178 | 65 | ord Arg | vuı | <u>9</u> | 70 | пси | OLY | пси | 110 | 75 | пси | - y - | Deu | 110 | 80 |
| 179 | | Pro Arg | Δτα | Glv | | Asn | Glu | Leu | Glv | - | Glv | Ara | Ara | Pro | |
| 180 | 011 | 110 1119 | _ | 5 | **** 9 | пор | Olu | | 90 | Cly | O I I | *** 9 | | 95 | |
| 181 | Thr | Ser Pro | - | _ | Leu | Gln | Glv | _ | - | Glu | Glu | Asp | _ | - | Asp |
| 182 | | 10 | | | | | _ |)5 | | | | | 10 | | <u>F</u> |
| 183 | Leu | Ser Leu | Ser | Cys | Thr | Leu | Val | Pro | Arq | Ser | Gly | Glu | Gln | Ala | Glu |
| 184 | | 115 | | 4 | | | 120 | | J | | _ | 125 | | | |
| 185 | Gly | Ser Pro | Gly | Gly | Pro | Gly | Asp | Ser | Gln | Gly | Arq | Lys | Arq | Arq | Gln |
| 186 | • | 130 | - | - | | 135 | - | | | - | 140 | - | | | |
| 187 | Thr | Ser Met | Thr | Asp | Phe | Tyr | His | Ser | Lys | Arg | Arg | Leu | Ile | Phe | Ser |
| 188 | 145 | | | • | 150 | - | | | - | 155 | | | | | 160 |
| 189 | Lys | Arg Lys | Pro | | | | | | | | | | | | |
| 190 | _ | | | | | | | | | | | | | | |
| 191 | (2) INFO | RMATION F | OR S | EQ 3 | D NO | 3:3: | | | | | | | | | |
| 192 | | | | | | | | | | | | | | | |
| 193 | (i) | SEQUENCE | CHA | RAC'I | TERIS | STICS | 3: | | | | | | | | |
| 134 | | A LEN | IGTH. | 19 | tase | e pai | rs | | | | | | | | |
| 195 | | (B) TYP | E: n | ucle | eic a | acid | | | | | | | | | |
| 2.7 | | (ଦୁ) ସଫର | ANDE | DNES | SS: S | singl | e | | | | | | | | |
| 197 | | (D) TOP | oLCC | 7: 1 | Lines | | | | | | | | | | |
| 198 | | | | | | | | | | | | | | | |
| 199 | (11) | MOLECULE | TYP | E: 0 | DNA | | | | | | | | | | |
| 200 | | | | | | | | | | | | | | | |
| 201 | (iii) | HYPOTHET | 'ICAL | : NC | , | | | | | | | | | | |
| 202 | | | | | | | | | | | | | | | |
| 203 | (iv) | ANTI-SEN | ISE: | YES | | | | | | | | | | | |
| 204 | | | | | | | | | | | | | | | |
| 205 | (vi) | ORIGINAL | SOU | RCE: | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

RAW SEQUENCE LISTING PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:51

INPUT SET: \$36943.raw

| | | INPUT SET: \$36943.raw |
|--------------|--|------------------------|
| 206 | (A) ORGANISM: HOMO SAPIENS | |
| 207 | (vi) CECHENCE DECORIDATION GRO ID NO 3 | |
| 208 209 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3: | |
| 210 | AGCCGGTTCT GACATGGCG | 1.0 |
| 211 | AGCCGGIICI GACAIGGCG | 19 |
| 212 | (2) INFORMATION FOR SEQ ID NO:4: | |
| 213 | (i) SEQUENCE CHARACTERISTICS: | |
| 214 | (A) LENGTH: 12 amino acids | |
| 215 | (B) TYPE: amino acid | |
| 216 | (D) TOPOLOGY: linear | |
| 217 | (b) Torobour Timear | |
| 218 | (ii) MOLECULE TYPE: peptide | |
| 219 | (21) Nobelook III populac | |
| 220 | (iii) HYPOTHETICAL: NO | |
| 221 | , | |
| 222 | (v) FRAGMENT TYPE: N-terminal | |
| 223 | | |
| 224 | (vii) IMMEDIATE SOURCE: | |
| 225 | (B) CLONE: [His]6 leader peptide | |
| 226 | | |
| 227 | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: | |
| 228 | | |
| 229 | Met Arg Gly Ser His His His His His Gly Ala | |
| 230 | 1 5 10 | |
| 231 | | |
| 232 | (2) INFORMATION FOR SEQ ID NO:5: | |
| 233 | | |
| 234 | (i) SEQUENCE CHARACTERISTICS: | |
| 235 | (A) LENGTH: 699 base pairs | |
| 236 | (B) TYPE: nucleic acid | |
| 237 | (C) STRANDEDNESS: single | |
| 238 239 | (D) TOPOLOGY: linear | |
| 240 | (ii) MOLECULE TYPE, ODNA | |
| 241 | (ii) MOLECULE TYPE: cDNA | |
| 242 | (iii) HYPOTHETICAL: NO | |
| 243 | (III) MIFOTHETICAL. NO | |
| 244 | (iv) ANTI-SENSE: NO | |
| 245 | (1), (2), (1) | |
| 246 | (vi) ORIGINAL SOURCE: | |
| 2 4 7 | (A) OPCANISM Schistosoma japonicum | |
| 048 | | |
| 149 | (vii) IMMEDIATE SOURCE: | |
| . : : | B CLONE GST | |
| 251 | | |
| 152 | (x1) SEQUENCE DESCRIPTION, SEQ ID NO.5. | |
| 253 | | |
| 254 | ALGICCCCTA TACTAGGTTA TTGGAMAATT AACCCCCTTG TGCGAACCAC | |
| 255 | TTGGAATATC TTGAAGAAAA ATATGAAGAG CATTTGTATG AGCGCGATGA | |
| 256 | TGGCGAAACA AAAAGTTTGA ATTGGGTTTG GAGTTTCCCA ATCTTCCTTA | |
| 257 | GGTGATGTTA AATTAACACA GTCTATGGCC ATCATACGTT ATATAGCTGA | |
| 258 | ATGTTGGGTG GTTGTCCAAA AGAGCGTGCA GAGATTTCAA TGCTTGAAGG | G AGCGGTTTTG 300 |

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/10/008,960

Original Text

DATE: 12/10/2002 TIME: 10:27:51

INPUT SET: S36943.raw

Line Error

SEQUENCE MISSING ITEM REPORT PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:51

INPUT SET: \$36943.raw

PRIOR APPLICATION DATA More Identifiers Found Than MAX Allowed

. . . .

SEQUENCE CORRECTION REPORT PATENT APPLICATION US/10/008,960

DATE: 12/10/2002 TIME: 10:27:51

INPUT SET: S36943.raw

Line

Original Text

Corrected Text